

Lesson 1-2

Estimating with Whole Numbers

Name: _____

Date: _____

Period: _____



Homework Video Tutor

Web Code: aqe-0102

Objective: We will be able to estimate with whole numbers by rounding and by using compatible numbers.

New Vocabulary: Compatible numbers

Estimating by Rounding

Remember 1-4 HIT THE _____! (Round down) 5-9 CLIMB THE _____! (Round up)

Example 1: Estimate $37 + 62 + 48$. First round each number to the nearest ten.



Quick Check: Estimate $94 - 32 - 41$. First round each number to the nearest ten.

Estimating with Compatible Numbers


Compatible Numbers are numbers that are easy to compute mentally. They are particularly useful for estimating products and quotients.

Examples

$$38 \div 6$$

$$6 \times 78$$


Example 2: Estimate $298 \div 16$ using compatible numbers.

 **Quick Check:** Estimate 8×39 using compatible numbers.

Application: Food Drive

Example 3: Washington Latin Middle School had a food drive. Each of the 22 homerooms collected about 290 cans of food. About how many cans were collected in all?

- a) 400 b) 600 c) 4,000 d) 6,000

 **Quick Check:** You have 324 cards for a strategy game. To play the game, a person needs 12 cards. About how many different people can play using your set of cards?

Homework Exercises

Show Your Work!	Corrections/Comments/Explanations
<p>(1) A classmate estimated that $29 + 42 + 37$ is about $20 + 40 + 40 = 100$. Explain your classmate's error.</p>	
<p>(2) Estimate using compatible numbers</p> <p>a) $103 \div 11 \approx 100 \div \underline{\hspace{1cm}} \approx \underline{\hspace{1cm}}$</p> <p>b) $52 \times 18 \approx \underline{\hspace{1cm}} \times 20 = \underline{\hspace{1cm}}$</p> <p>c) $597 \div 31 \approx \underline{\hspace{1cm}} \div 30 = \underline{\hspace{1cm}}$</p>	
<p>(3) Estimate by rounding each number first.</p> <p>a) $47 + 228 + 23$</p> <p>b) $6,963 - 3,098$</p>	
<p>(4) You are going on vacation 1,038 miles away. The first day you travel 284 miles. The second day you travel 326 miles. About how much farther do you have to go?</p>	

<p>(5) Challenge The cost of four copies of a book is \$37. Estimate the cost of one book.</p> <p>Is your estimate higher or lower than the book’s actual cost? Why?</p>	
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